



# MD782

Digital Mobile Two-Way Radio  
with Display, Programmable Keys, and GPS (Optional)



As a product built to the DMR standard, the MD782 combines spectral efficiency with versatile digital functions such as secure communication, texting, and data management. The Hytera MD782 Series brings you a NEW cutting edge technology at an exceptional value.



GPS Model (MD782G) Available

Clear Digital Communications Using DMR Technology

Large Color LCD Allows for a Full View of Messages & Alerts

Narrow-Band Compliant with the FCC 2013 Mandate



**STANDARD**  
**3** YEAR  
**WARRANTY**

**Hytera**  
Digital Value is Here



## Product Highlights



### User-Friendly Design

A large-sized HD color LCD display allows for excellent visibility of onscreen messages even under extremely bright conditions.

The seven large programmable keys facilitate communication and access to various features.

### Reliable Quality

MD782 is strictly compliant with MIL-STD-810 C/D/E/F and IP54 standards, ensuring outstanding performance.

### Superior Audio

With the combined application of narrowband codec and digital error-correction technologies, MD782 is capable of ensuring superior audio under noisy environments or at the edge of the coverage area. In addition, the adoption of the AGC technology also optimizes your voice and with the built-in 5W speaker, MD782 ensures clear and crisp voice communication.



### Spectrum Efficiency

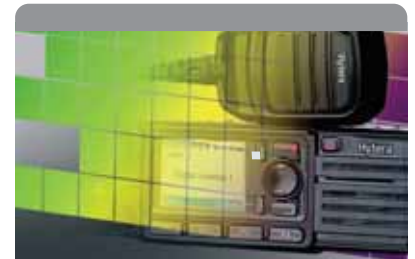
Benefitting from the TDMA technology, MD782 allows twice the channels based on the same spectrum resource. This is a huge relief due to the increasing shortages in spectrum resources.

### Dual-Slot Pseudo Trunking

With this feature, the free slot can be allocated to a member that needs to communicate on the same channel. This enhances the frequency efficiency and allows you to communicate at all times.

### Secure Communication

Besides the intrinsic encryption of the digital technology, MD782 provides enhanced encryption capability (such as 256-bit encryption algorithm) and the Scrambler feature (selectable).



### 1024 Channels

The MD782 allows 1024 programmable channels. This is an excellent attribute for large fleets.

### Versatile Functionalities

In addition to conventional communication, the MD782 features versatile digital functions such as Message, Scan, Emergency, Emergency Footswitch, Channel Steering, Auto Registration\*, High-speed Data Transmission\* and Lone Worker\*.

### Expansion Port

The reserved port in the MD782 allows users or a third party to further develop other helpful functions (Message, GPS, Call Control and Telemetry).

\* Indicates functions available in later version.

## Additional Features

### Dual Modes (Analog+Digital)

MD782 can operate in either analog or digital mode. It is compatible with the conventional analog systems, allowing for a smooth analog-to-digital migration.

### Versatile Voice Calls

Intelligent signaling options of MD782 supports various call types, including Private Call, Group Call and All Call.

### GPS

MD782G supports viewing of GPS positioning information and sending of GPS text message.

### IP Service\*

MD782 allows multiple IP functions if connected with a PC via IP address.

### Various Analog Signaling Types

MD782 supports various analog signaling types (HDC1200, DTMF\*, 2-Tone\* and 5-Tone\*).

### Multiple Languages

MD782 supports 10 languages (English, Simplified Chinese, Traditional Chinese, German\*, Spanish\*, French\*, Italian\*, Polish\*, Russian\* and Turkish\*), allowing you to select as per your needs.

### Messaging

The MD782 can transmit and receive short text messages and predefined status messages.

### Emergency

The MD782 is equipped with multiple emergency alarm methods such as Emergency, enabling you to get instant help in the case of a critical event.

### Scan

Allows you to listen/communication activities on other channels to you can keep a close track of your team members.

### Software Upgradable

With this capability, you can enjoy further features available in later versions without buying a new radio.

\* Indicates functions available in later version.

## Mechanical Design Features



Large User-Friendly Volume and Channel Switching Knob



Innovative Ring-Shaped LED:  
- Flashes Green When Powering on  
- Glows Red When Transmitting  
- Glows Green When Receiving  
- Flashes Orange When Scanning



Effective Heat-Sink Capability



Rugged Palm Microphone Port



2.0" High-definition Color TFT LCD Provides Clear Visibility Even in Bright Environments



Dual-Color Injection Molding Protects Radio and Provides IP-54-Rated Protection



Seven Programmable Keys Provide Quick Access to Communication Features



Integrated GPS Available on the MD782G



# Standard Accessories

Palm Microphone SM16A1	Microphone Hanger and Screws	Mounting Bracket Kit	Fuse	Power Cord
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# Optional Accessories

External Speaker SM09D1	Desktop Microphone SM10A1	Programming Cable (USB Port) PC37	GPS Antenna	Keypad Microphone SM19A1*	Antenna	320W External Power Supply Ps22002	Data Cable PC40

\*Available Soon

Pictures above are for reference only and may vary from actual products.

# Specifications

General		
Frequency Range	VHF: 136-174MHz UHF1: 400-470MHz	
Channel Capacity	1024	
Zone Capacity	64 (each with a max of 16 channels)	
Channel Spacing	25 /20/12.5 KHz	
Operating Voltage	13.6V ±15%	
Current Drain	Standby	<0.6A
	Receive	<2.0A
	Transmit	<12A (45W/50W) <8A (25W)
Frequency Stability	±1.5ppm	
Antenna Impedance	50Ω	
Dimensions (H×W×D) <small>(with standard battery, without antenna)</small>	60×174×200 mm / 2.4×6.9×7.9 inches	
Weight <small>(with antenna &amp; standard battery)</small>	1.7kg / 60 oz.	
Front Case	PC+ABS	
LCD Display	220×176 pixels, 262000 colors 2.0 inch, 4 rows	

Receiver	
Sensitivity (Analog)	0.3μV (12dB SINAD) 0.22μV (Typical) (12dB SINAD) 0.4μV (20dB SINAD)
Sensitivity (Digital)	0.3μV/BER5%
Selectivity TIA-603 ETSI	65dB @ 12.5 kHz / 75dB @ 20/25 kHz 60dB @ 12.5 kHz / 70dB @ 20/25 kHz
Intermodulation TIA-603 ETSI	75dB @ 12.5/20/25 kHz 70dB @ 12.5/20/25 kHz
Spurious Response Rejection TIA-603 ETSI	75dB @ 12.5/20/25 kHz 70dB @ 12.5/20/25 kHz
S/N	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz
Rated Audio Power Output	3W
Rated Audio Distortion	≤3%
Audio Response	+1~-3dB
Conducted Spurious Emission	<-57 dBm

GPS (for MD782G only)	
TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters (32.8 feet)

Transmitter	
RF Power Output	VHF High Power: 50W VHF Low Power: 25W UHF High Power: 45W UHF Low Power: 25W
FM Modulation	11KΦF3E @ 12.5 kHz 14KΦF3E @ 20 kHz 16KΦF3E @ 25 kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz -30dBm>1GHz
Modulation Limiting	±2.5kHz @ 12.5 kHz ±4.0kHz @ 20 kHz ±5.0kHz @ 25 kHz
FM Noise	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz
Adjacent Channel Power	60dB @ 12.5 kHz 70dB @ 20/25kHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3 %
Digital Vocoder Type	AMBE++ or SELP
Digital Protocol	ETSI-TS102 361-1, 2&3

Environmental Specifications	
Operating Temperature	-30°C ~ +60°C -22°F ~ +140°F
Storage Temperature	-40°C ~ +85°C -40°F ~ +185°F
ESD	IEC 61000-4-2 (level 4) 8kV (contact) 15kV (air)
American Military Standard	MIL-STD-810 C/D/E/F
Dust & Water Intrusion	Ip54 Standard
Humidity	Per MIL-STD-810 C/D/E/F Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F Standard

All Specifications are tested according to applicable standards, and subject to change without notice due to continuous development.

## Applicable Military Standards

American Military Standard	810C		810D		810E		810F	
	Method	Procedure	Method	Procedure	Method	Procedure	Method	Procedure
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	II
High Temperature	501.1	I, II	501.2	I, II	501.3	I, II	501.4	I, II
Low Temperature	502.1	I	502.2	I, II	502.3	I, II	502.4	I, II
Temperature Shock	503.1	I	503.2	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Rain	506.1	II	506.2	II	506.3	I, II	506.4	I, II
Humidity	507.1	II	507.2	II, III	507.3	II, III	507.4	
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	I
Sand & Dust	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.5	I/24
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

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